WHAT IS CLAIMED IS:

1. An amplifying optical fiber for amplifying optical signal transmitted therethrough by stimulated emission, comprising:

an inner core disposed at a center of said optical fiber and comprising MX, $GaS_{3/2}$ and RE;

an outer core surrounding said inner core and containing SiO_2; and

a cladding surrounding said outer core and containing SiO_2, wherein

said M contained in MX is one component selected from the group consisting of Na, K, Rb and Cs;

said X contained in MX is one component selected from the group consisting of F, Cl, Br, and I; and

said RE is one component selected from the group consisting of Ce, Pr, Pm, Nd, Sm, Eu, Gd, Tb, Ho, Dy, Er, Tm and Yb.

2. An amplifying optical fiber as claimed in claim 1, wherein said inner core further comprises Ge, As, and S.

3. An amplifying optical fiber as claimed in claim 2, wherein said inner core further comprises $LaS_{3/2}$.

4. An amplifying optical fiber as claimed in claim 3, wherein said inner core has a diameter in the range of 0.1 to 8μm.

5. An amplifying optical fiber as claimed in claim 4, wherein said inner core comprises MX of 5 to 67 mole %, $GaS_{3/2}$ of 5 to 50 mole %, and RE of 0.001 to 5 mole %.

6. An amplifying optical fiber as claimed in claim 5, wherein said inner core further comprises one component selected from the group consisting of 0<mole % <= 33 of GE , 0<mole % <= 40 of As, 0<mole % <= 67 of S, and 0<mole % <= 50 of $LaS_{3/2}$.

7. An amplifying optical fiber as claimed in claim 3, wherein:

said outer core further comprises S_iF_4; and

said cladding further comprises SiF_4.

8. An amplifying optical fiber as claimed in claim 7, wherein:

said outer core further comprises Al_2O_3 and GeO_2; and

said cladding further comprises B_2O_3 and P_2O_5.

9. An amplifying optical fiber as claimed in claim 8, wherein said outer core has a diameter in the range of 2 to 10 μm.

10. An amplifying optical fiber as claimed in claim 9, wherein said cladding has a diameter in the range of 100 to 250 μm.

11. An amplifying optical fiber as claimed in claim 3, wherein said outer core has a diameter in the range of 2 to 10 μm.

12. An amplifying optical fiber as claimed in claim 11, wherein said outer core comprises SiO_2 of 30 to 100 mole %.

13. An amplifying optical fiber as claimed in claim 12, wherein said outer core further comprises one component selected from the group consisting of 0<mole %<= 30 of B_2O_3 , 0<mole %<= 10 of P_2O_5, 0<mole %<= 10 of Al_2O_3, 0<mole %<= 30 of GeO_2, 0<mole %<= 40 of PbO, and 0<mole %<= 10 of SiF_4.

14. An amplifying optical fiber as claimed in claim 3, wherein said cladding has a diameter in the range of 100 to 250 μm.

15. An amplifying optical fiber as claimed in claim 14, wherein said cladding comprises SiO_2 of 30 to 100 mole %.

16. An amplifying optical fiber as claimed in claim 15, wherein said cladding core further comprises one component selected from the group consisting of 0<mole %<= 30 of B_2O_3 , 0<mole %<= 10 of P_2O_5, 0<mole %<= 10 of Al_2O_3, 0<mole %<= 30 of GeO_2, 0<mole %<= 40 of PbO, and 0<mole %<= 10 of SiF_4.

17. A method for fabricating an amplifying optical fiber comprising the steps of:

forming an outer core by heating a quartz tube while impregnating raw material gas into said quartz tube;

supplying solid raw material into said quartz tube;

forming an inner core by heating said quartz tube while rotating said quartz tube; and

collapsing the cores by heating said quartz tubes above a softening point to remove a vacant space in said quartz tube.

18. The method of claim 17, wherein the step of forming the outer core further comprises the step of forming the outer core on the inner wall of the quartz tube for a cladding by means of the chemical vapor deposition method.

19. A network comprising optical fiber according to claim 1.

20. An optical fiber amplifier comprising optical fiber according to claim 1.